

MEMORANDUM

DATE: October 16, 2009

TO: Mike Amling, Principal in Charge

FROM: Ingri Quon, Senior Biologist

SUBJECT: Arroyo Toad Habitat Assessment

On September 22, 2009, LSA Associates, Inc. Senior Biologist Ingri Quon conducted a site visit to assess the habitat conditions for arroyo toad (*Anaxyrus californicus*) in and adjacent to San Juan Creek at Interstate 5 (I-5) in south Orange County. The suitability of the creekbed and adjacent uplands was visually assessed while walking along the northeast edge of the creek. Binoculars was used when needed.

The conditions within and adjacent to the channelized creek appear suitable for arroyo toad breeding (during the breeding season) and foraging. The creek bed had a narrow channel of slow-moving, shallow water with a sandy substrate throughout the bottom of the concrete channel. The channel bottom in this area is over 100 feet (ft) wide. Upland habitat quality immediately adjacent to the San Juan Creek bridge is low to marginal, but upstream there is generally more suitable upland habitat with channel vegetation of mature willow riparian forest and willow riparian scrub. The area immediately upstream from the I-5 bridge over San Juan Creek has sandy benches within the creekbed, which is potentially suitable burrowing/upland habitat for arroyo toad.

Areas within 0.62 mile (mi) of arroyo toad sites that have suitable habitat are presumed to have arroyo toads (United States Fish and Wildlife Service [USFWS] 1999). The closest documented arroyo toad detection is approximately 3 mi upstream of the project area at Antonio Parkway and San Juan Creek.¹ The California Department of Fish and Game (CDFG) Natural Diversity Database lists arroyo toads in the San Juan Creek area approximately 5 mi upstream of the project area.² Arroyo toads (males) are known to move 0.3–1.2 mi linearly along stream courses in one season.³ The habitat along San Juan Creek between these two known locations mentioned above and the project area is relatively undisturbed and suitable for arroyo toads; therefore, arroyo toad may occur closer to the project area than the existing records indicate.

Because arroyo toad may move downstream, LSA recommends protocol arroyo toad surveys along San Juan Creek within the project impact boundary and a 500 ft buffer, access permitting. Six protocol survey visits must be conducted in the spring with at least one survey conducted in April, May, and June. Surveys can generally begin March 15 and conclude by July 1, with 7 days between surveys. It is recommended that surveys begin in late March 2010. One survey includes both daytime and nighttime components conducted within the same 24-hour period. The survey results will be valid for one year.

¹ Caltrans communication with LSA in 2004 in reference to a project at San Juan Creek Bridge near Antonio Parkway.

² California Department of Fish and Game. May 2, 2009. Natural Heritage Division, Natural Diversity Database (CNDDDB). *RareFind Version 3.1.0*. Records search executed August 26, 2009, covering the United States Geological Survey 7.5-minute series topographic map, *Dana Point, San Clemente, San Onofre Bluff, Margarita Peak, Las Pulgas Canyon, San Juan Capistrano, Canada Gobernadora*, and *Oceanside, California* quadrangles. Sacramento, California: The Resources Agency.

³ United States Fish and Wildlife Service. 1999. Arroyo Southwestern Toad (*Bufo microscaphus californicus*) Recovery Plan. United States Fish and Wildlife Service, Portland, Oregon. Vi + 119pp.